Spain: Aerospace and Defense Industry



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Summary

Spain's aerospace sector is a \$6.1 billion industry with excellent opportunities for U.S. exporters. Looking at specific sectors, 63 percent of sales can be attributed to systems and frames, 13 percent to engines, 12 percent to equipment, and 12 percent to space. Spain's most important aerospace companies are world leaders in the manufacture of small and medium-sized aircraft and aircraft gas-turbine engines and flight simulators, as well as in aircraft and engine maintenance. Airlines are renewing their fleets in response to the rapid growth of regional markets and the increasingly competitive airline market. During 2007, U.S. manufacturers and distributors had 29 percent of the import market (\$316 million) with notable increases in the import of aircraft under 2,000 kg, mid-sized aircraft (2,000-15,000 kg), and propellers, rotors, and parts thereof.

In 2007, the aerospace industry's revenue increased by 5.4 percent compared to the previous year. Employment grew by 11.8 percent as well: in 2007, the sector employed more than 34,000 people. The aerospace industry currently dedicates 14.4 percent of sales to R&D (civil and military use are almost equal). Sales to end-users fell to \$1.8 billion.

The international nature of all work on both military and civil projects can be seen from the fact that 70 percent of all activity was for export, a figure similar to that of the previous year, though some of these exports were generated by public purchases (A400M, A380, Frigates, etc.) and commitments deriving from them.

The Spanish aerospace industry achieved a surplus of \$3.2 million in 2007.

Current best prospects for U.S. exporters are: avionics equipment, CNC (computerized numerical control) specialized machinery and software, ground support equipment, landing gear, aviation fuel, and pre-assembled components and parts.

Market Overview

Spain's aerospace industry is primarily located in Madrid, Andalusia, and the Basque Country. Aerospace imports (under import code HS 88) totaled \$1.1 billion in 2007, with a U.S. import market share of 29 percent. In 2007, Spain's aerospace industry revenues totaled \$6.1 billion, 34 percent of this figure earned in the military sector of the aerospace market. According to ATECMA, the association of Spanish airline industries, some \$879 million, 14.4 percent of total revenues, was spent on research and development in 2007.

The Spanish aerospace industry employs more than 34,000 people. The largest aerospace companies are **Airbus Military**, formerly known as **EADS CASA** (part of the European Airbus consortium), **AERNNOVA** (formerly **GAMESA AERONAUTICA**), **INDRA**, and **INDUSTRIA DE TURBO PROPULSORES** (ITP). These companies conduct R&D, design, production, sales and maintenance on a variety of aircraft and their parts, spacecraft and electronic simulation systems. Spanish airline companies **IBERIA**, **SPANAIR** (part of an airline group along with Aerolineas Argentinas and AEBAL), **AIR EUROPA**, and **VUELING AIRLINES** are renewing their fleets to meet increased demand. Other Spanish airlines include Aerolineas de Baleares, Air Comet, Air Nostrum, Air Pullmantur, Airclass Airways, Audeli Air, Binter Canarias, Bravo Airlines, Clickair, Cygnus Air, Flyant, Futura International Airways, Gadair European Airlines, Gestair, Girjet, Hola Airlines, Ibertrans Aerea, Iberworld, Intermediacion Aerea, Islas Airways, LTE International Airways, Lagunair, Navegacion y Servicios Aereos Canarios (NAYSA), Orionair, Pan Air, Sky Service Aviation, Spanair, Swiftair, Tadair, Taxijet and Wondair. Air Nostrum, Vueling Airlines, and Lagunair are all lowcost carriers.

¹ Statistics provided by ATECMA Annual Report, 2007

In recent years, the corporate aviation industry has boomed worldwide, and the industry in Spain is no exception. Worldwide sales in 2007 amounted to 170 firm orders for the Embraer 170, 405 for the Embraer 190, 60 for the Embraer 195 and 129 for the Embraer 175.² Due to the privacy and discretion associated with the corporate aviation industry, ATECMA does not divulge specific statistical information. However, there is an increasing demand for air transport companies that offer the following services: executive flights, air ambulance, medical flights, corporate flights, air cargo, aerial photography, charters, registration and licensing of airplanes and maintenance service.

Based on its long experience in the design, manufacture and certification of complete aeronautical structures, EADS CASA carried out in 2006 a large number of deliveries, outstanding among them being the horizontal tail plane of the Falcon F7X. This year saw the completion of the certification documentation of the horizontal tail plane of this aircraft and the certification fatigue tests were concluded.

Within the closed price contract signed with EADS CASA for the design of the central casing, trailing edge, elevator, tip and central fastener of the horizontal tail plane of the Falcon F7X, CT INGENIEROS (a subcontractor of EADS CASA(http://www.ctingenieros.es/) passed the first flight milestone and delivered all the calculation documentation and the modifications that took place up to this phase of the program, now very close to certification.³

Airlines with fleets of 10 or fewer airplanes are Aerolineas de Baleares, Air Comet, Air Pullmantur, Airclass Airways, Audeli Air, Cygnus Air, Flyant, Ibertrans Aerea, Iberworld, Intermediacion Aerea Islas Airways, Lagunair, Navegacion y Servicios Aereos Canarios (NAYSA), Orionair, Pan Air, Sky Service Aviation, Tadair, and Taxijet.

GESTAIR is the biggest player in the Spanish corporate aviation industry, boasting a fleet of 28 airplanes. This fleet includes: Embraer Legacy 135, Beechcraft 350, Citation Jet, Citation Jet 2, Citation V Ultra, Falcon 20 Retrofit, Falcon 50, Falcon 900 C, Falcon 2000, Global Express, Gulfstream 200, Gulfstream 550, Gulfstream IIB, Gulfstream IV, Gulfstream V, Hawker 800 XP, Premier, Lear Jet 55, and Westwind 1124 IIB. GESTAIR operates from six locations in Spain: Madrid, Palma de Mallorca, Barcelona, Burgos, Santiago de Compostela, and A Coruña. (Please see the appendix for more information on Spanish airlines and aerospace companies).

Regional markets are growing, and Spanish airports are being renovated and expanded. The spare-parts market is also growing. U.S. spare-parts firms can look forward to excellent trade opportunities with Spain, as U.S. aeronautical products are considered highly technologically advanced. A comprehensive air transport agreement between the United States and the European Union, signed in March 2007, is certain to increase the growth of international trade in addition to aviation liberalization. According to a report by the U.S. Department of Commerce's International Trade Administration, the estimated value of the agreement is \$12 billion in annual economic benefit "to the transatlantic airline and related industries." The overview of the official report is as follows:

"On March 2, 2007, the United States and the European Union (EU) concluded a comprehensive air transport agreement with 27 EU countries. The agreement, which was signed in conjunction with the April 30, 2007, U.S.-EU Summit in Washington, D.C., has tremendous potential for transforming air travel and trade across the Atlantic.

"The U.S.-EU economic relationship has contributed to commercial success on both sides of the Atlantic. It has opened investment, promoted trade in goods and services, and enabled the mobility of persons through initiatives such as the Visa Waiver Program. The United States and the EU lead liberalization efforts in the World Trade Organization (WTO), and they continue to work together to remove the remaining economic barriers.

² Statistics provided by ATECMA Annual Report, 2007

³ Statistics provided by ATECMA Annual Report, 2006

"The U.S. aviation relationship with the European Union and the member states, however, has not kept pace with our larger economic and commercial ties. The EU and the United States are the two largest air transport markets in the world. Together they account for more than half of all global scheduled passenger traffic and 71.7 percent of the world's freighter fleet. The European country with which the United States has had the closest relationship overall, the United Kingdom, is the country with which it has had our most restrictive aviation relationship.

"The U.S.-EU agreement is thus historic and supports not only aviation liberalization but also the growth of international trade. Aviation plays an important role in driving globalization, enabling trade by bringing businesspeople together, moving high-value, time-critical products, and contributing to the expansion of travel and tourism.

"Open Skies agreements remove regulatory limits on the number of carriers a country may designate, the number of flights, the routes flown, and the type of aircraft an airline may use. Open routing provisions that permit unlimited flights between the parties also allow carriers to continue flights on the third-country markets. While removing barriers to allow market entry and service, the agreements affirm the critical operations of civil aviation, such as safety and security. The agreements cover operations by scheduled and charter operators, for passenger and all-cargo services." 4

Market Highlights & Best Prospects

In the airline sector, optimistic expectations for this decade were thwarted by international tensions in Iraq, the SARS crisis, the hike in oil prices and the weakness of the leading world economies, especially Europe. Although traffic grew during this decade, that instability and its repercussions on world air traffic forced airline companies to adapt to market conditions and scale back investment and development plans. The growth of low-cost airlines in the European market, the excess capacity in Europe and the consequent fall in average revenues forced many companies to implement further cost-cutting measures and productivity enhancements.

IBERIA

IBERIA, Spain's largest passenger airline and market leader for travel between Europe and Latin America, reported net earnings of \$452 million in 2007. In the same year, IBERIA employed more than 23,500 people, boasted a fleet of 135 aircraft, and operated in 40 countries. ⁵

In November 2007, Caja Madrid became the largest shareholder of IBERIA (nearly 23 percent) when it purchased BBVA Bank's 7 percent stake. Since the signing of the Open Skies agreement between the U.S. and EU in March 2007, it has been widely suspected that British Airways will make such a move on IBERIA, given that the agreement significantly liberalized the aviation industry enabling airlines in the U.S. and Europe to fly between London's Heathrow Airport and American cities. Some fear that the private equity consortium will break up the airline, forcing IBERIA to sell its airport handling and maintenance businesses (IBERIA MANTENIMIENTO). The current status might change due to the latest news on British Airways results in the stock market.

In March 2007, The United States and the EU entered the Open Skies agreement liberalizing the aviation industry and allowing all American and European airlines to fly between London's Heathrow Airport and American cities. By August 2008, Iberia announced that it planned to merge with British Airways and American Airlines.

For its fleet renewal, IBERIA opted for the Airbus 340/600 to replace the Boeing B-747. The decision was based in large part on Iberia's fleet modernization and homogenization program to cut operating costs while raising fleet utilization and staff productivity. When this renewal is completed, Iberia will use only A-340s (either A-340/300s or /600s) for long-haul flights.

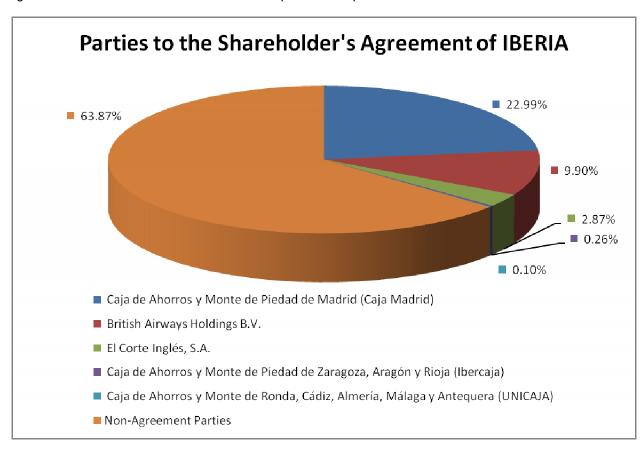
AIRBUS ESPAÑA

⁴ http://trade.gov/media/publications/pdf/openskies_2007.pdf

⁵ Statistics provided by Iberia Annual Report, 2007

AIRBUS ESPAÑA produces various important parts for the A380. The 555-seat double-decker's huge horizontal tail plane is designed at Getafe's engineering facilities some 20 kilometers from Madrid, AIRBUS ESPAÑA's largest site in Spain. This section is also initially assembled here. Getafe is also responsible for the A380's horizontal tail plane's lateral boxes, the main landing gear doors, the dorsal fin, part of the rear fuselage where the horizontal and vertical tail planes are joined, and the fuselage tail cone. Getafe specializes in the testing, systems testing and final assembly of horizontal tail planes of the A300/A310 family, the A320 family and the A330/A340 family, but shares responsibility for the A380 horizontal tail plane with Puerto Real, another large production plant in Cádiz, Spain. 6

Spain's 10 percent participation in the A380 program is in structural components. AIRBUS ESPAÑA subcontracts 37 percent of manufacturing of structural components and 97 percent of tooling to Spanish aerospace companies, namely ITP and Aernnova (formerly Gamesa). These companies will also be responsible for R&D for these subassemblies. U.S. firms manufacturing structural components have excellent opportunities for export to Spain. The A380 program has lead to major investment in expansion and building of new facilities, which has helped strengthen the overall industrial infrastructure of Spain's aerospace sector.



Source: http://grupo.iberia.es/content/Grupolberia/Documentos/IB%20MEMORIA%20C%202008%20ING.pdf

While the aerospace sector experienced a downturn in 2007, Spain's largest aerospace companies did not feel the effects as much as did smaller companies due to economies of scale and diversification of products and services. For example, EADS CASA was chosen to complete assembly for the Airbus

http://www.airbus.com/en/worldwide/airbus_in_spain.html

ATECMA Annual Report, 2004

Military Company's A400M (military transportation aircraft) program, and will have a total participation of 10 percent.

For the Airbus Military A400M program, the consortium of engine constructors, Europrop International Gmbh (EPI), composed of ITP, Rolls Royce, Snecma and MTU was selected by Airbus Military, in competition with Pratt & Whitney Canada, for propulsion of the A400M European transport aircraft. The A400M will replace Europe's ageing military transport fleet and will become the main competitor to Lockheed Martin's C130 Hercules.

Prospects are promising for EADS CASA. In recent years, the company has secured important contracts, ranging from R&D to aircraft construction and modernization. EADS CASA oversees the activities of the División de Aviones de Transporte Militar (MTA) and Defensa y Seguridad (DS), two distinct sections within the company. The MTA designs, produces, and markets medium-sized and smaller airplanes for cargo purposes. Currently, the MTA is working on the Deepwater Project for the U.S. Coast Guard. One of the MTA's biggest projects involves the production of in-flight-refueling planes. The other arm of EADS CASA, DS, is divided into three categories: Defense Electronics (DE), Military Air Systems (MAS), and Defense and Communications Systems (DCS). MAS is involved in production of combat aircraft and flight simulators. It is most well known for its role in the production of the Eurofighter jet.

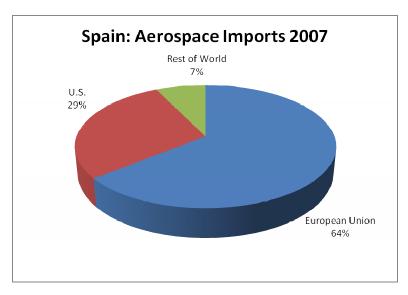
Forecasts indicate that over the next 10 years air traffic will double, so it will be critical to update air traffic management systems on both sides of the Atlantic. The Government of Spain, through the Ministry of Public Works, had a Master Plan for Infrastructure for 2000-2007. The plan provided for expansion of all major airports in Spain to accommodate this expected rise in demand. The \$3.81 billion⁸ expansion of Madrid's Barajas Airport, completed in 2005, will make it one of Europe's most important airports.

Import Market

Aerospace Industry (aircraft, spacecraft and parts thereof)	2004	2005	2006	2007
Market Size	\$4.1	\$4.7	\$5.3	\$6.1
Total Imports	0.827	0.901	1.150	1.107
Total Exports	2.382	2.664	3.715	4.263
Total U.S. Imports	0.3	0.239	0.299	0.316
U.S. Market Share	36%	27%	26%	29%
Exhange Rate \$/	0.81	0.80	0.797	0.725

Figures in \$ Billions Source: ATECMA Annual Report, 2007

⁸ ATECMA Annual Report, 2004



Source: ATECMA Annual Report, 2007

Best Prospects

The best prospects in the Spanish aerospace and parts market fall under the following HS Codes:

HS 880310 Propellers, Rotors & Parts Thereof

HS 880230 Airplanes & other Aircraft (>2,000kg<15,000kg)

HS 880330 Other Parts of Airplanes & Helicopters

HS 880320 Landing Gear & Parts Thereof

HS 880220 Airplanes & Other Aircraft (<2,000kg)

HS 880240 Airplanes & Other Aircraft (>15,000kg)

HS 880400 Parachutes and Parts Thereof

HS 880211 Helicopters (<2,000kg)

Airplanes

U.S. exporters are clear leaders in the Spanish airplanes and transportation import sector. In the propellers and rotors markets under import code HS 880310, U.S. imports fell from \$11.4 million to \$6.8 million from 2006 to 2007, with 49 percent of the total import market. In addition, U.S. exporters of airplanes and other aircraft under 2,000kg (import code HS 880220) captured 57 percent of the market in 2007, down from 62 percent in 2006. Despite these decreases, U.S. firms involved in the production and maintenance of small aircraft have excellent trade opportunities in the Spanish market.

Markets not dominated by U.S. exporters during 2007 were helicopters (import code HS 880211) and parachutes and parts thereof (import code HS 880400). In these markets, U.S. exporters captured 17 percent and 16 percent market share, respectively, facing stiff competition from Italian and Chinese exporters.

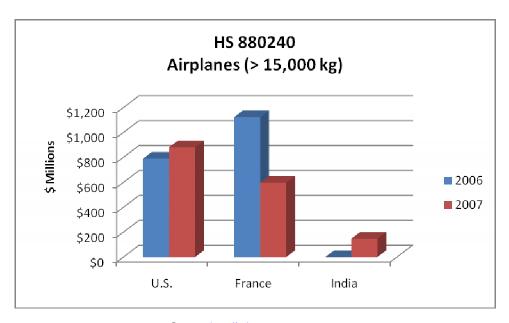
In sum, Spanish aerospace firms in both civil and military markets have long-standing relationships with U.S. aircraft manufacturers. U.S. aircraft parts and services are highly recognized in both sectors.

Aircraft and Helicopter Parts

HS 880240 Airplanes (>15,000 kg)

	2006	2007
Total Imports	\$2,016.9	\$1,923.7
U.S. Imports	789.5	880.4
U.S. Market Share	39%	46%
Exchange Rate \$/	0.74	0.725

Figures in \$ Millions
Source: http://aduanas.camaras.org



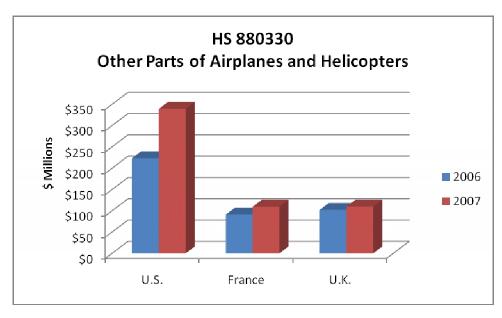
Source: http://aduanas.camaras.org

U.S. exporters of large airplanes saw a 10 percent increase from 2006 to 2007. U.S. exporters have shown a strong presence in this sector, second only to France.

HS 880330 Other Parts of Airplanes and Helicopters

	2006	2007
Total Imports	\$683.6	\$786.6
U.S. Imports	223.3	339.5
U.S. Market Share	33%	43%
Exchange Rate \$/	0.74	0.725

Figures in \$ Millions
Source: http://aduanas.camaras.org



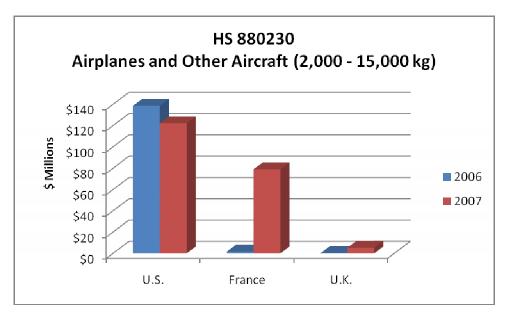
Source: http://aduanas.camaras.org

From 2006 to 2007, U.S. imports of airplane and helicopter parts increased 34 percent while market share increased 23 percent, positioning the U.S. as a leader in this sector.

HS 880230 Airplanes and Other Aircraft (2,000 – 15,000 kg)

	2006	2007
Total Imports	\$250.8	\$214.0
U.S. Imports	138.7	122.1
U.S. Market Share	55%	57%
Exchange Rate \$/	0.74	0.725

Figures in \$ Millions
Source: http://aduanas.camaras.org



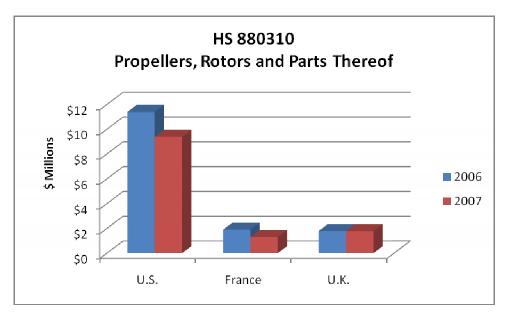
Source: http://aduanas.camaras.org

In both 2006 and 2007, U.S. imports dominated the small to medium-sized aircraft sector, claiming over 50 percent market share.

HS 880310 Propellers, Rotors and Parts Thereof

	2006	2007
Total Imports	\$21.1	\$18.9
U.S. Imports	11.4	9.4
U.S. Market Share	54%	50%
Exchange Rate \$/	0.74	0.725

Figures in \$ Millions
Source: http://aduanas.camaras.org



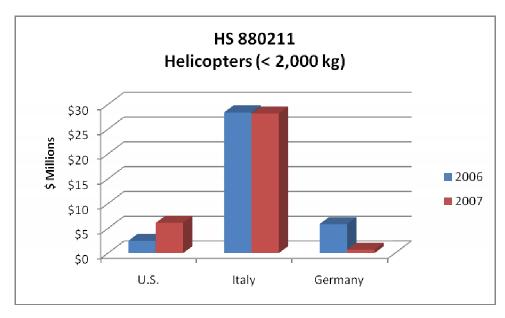
Source: http://aduanas.camaras.org

U.S. exporters represent a considerable force in this sector, leading France and the U.K. with 50 percent or more market share in 2006 and 2007.

HS 880211 Helicopters (< 2,000 kg)

	2006	2007
Total Imports	\$42.7	\$37.0
U.S. Imports	2.5	6.1
U.S. Market Share	6%	17%
Exchange Rate \$/	0.74	0.725

Figures in \$ Millions
Source: http://aduanas.camaras.org



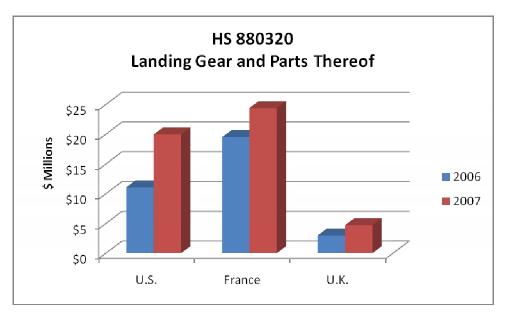
Source: http://aduanas.camaras.org

While total imports of small helicopters fell more than 13 percent from 2006 to 2007, U.S. imports grew 59 percent.

HS 880320 Landing Gear and Parts Thereof

	2006	2007
Total Imports	\$39.7	\$57.7
U.S. Imports	11.1	20.0
U.S. Market Share	28%	35%
Exchange Rate \$/	0.74	0.725

Figures in \$ Millions
Source: http://aduanas.camaras.org



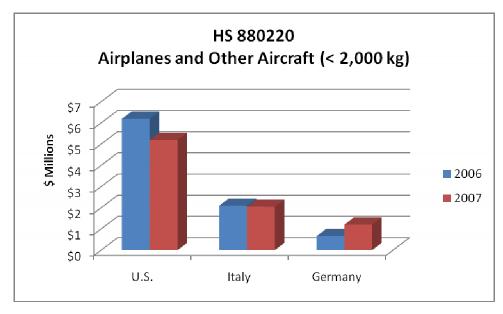
Source: http://aduanas.camaras.org

While France is a clear leader in the landing gear sector, U.S. imports rose nearly 45 percent from 2006 to 2007. U.S. exporters also enjoyed a 20 percent increase in market share in Spain.

HS 880220 Airplanes and Other Aircraft (< 2,000 kg)

	2006	2007
Total Imports	\$10.0	\$9.1
U.S. Imports	6.2	5.2
U.S. Market Share	62%	57%
Exchange Rate \$/	0.74	0.725

Figures in \$ Millions
Source: http://aduanas.camaras.org



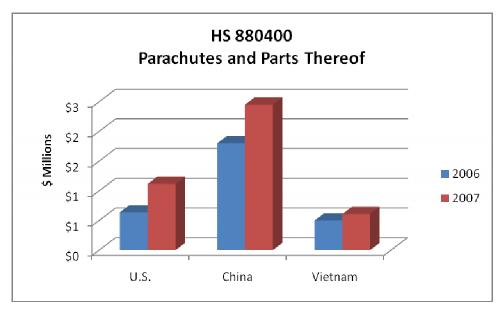
Source: http://aduanas.camaras.org

As total imports in small airplanes and other aircraft fell, so did U.S. imports, but the U.S. still remains the clear leader in this sector.

HS 880400 Parachutes and Parts Thereof

	2006	2007
Total Imports	\$5.5	\$7.1
U.S. Imports	0.6	1.1
U.S. Market Share	12%	16%
Exchange Rate \$/	0.74	0.725

Figures in \$ Millions
Source: http://aduanas.camaras.org



Source: http://aduanas.camaras.org

While China continues to dominate in the parachute sector, U.S. imports rose by 45 percent from 2006 to 2007.

Competitive Situation

Domestic Production

The aerospace industry can be divided into three general industrial sectors: aircraft and systems engines, and equipment. Aircraft manufacturing is the dominant activity in the sector. Aerospace production in Spain is a small but highly developed and mature industrial sector. Heavy investment in the

A -380 program has strengthened the aeronautical infrastructure and will increase Spain's production capabilities in the future.

The A400M program will further strengthen the importance of Andalusia (in the south of Spain) as one of the country's main aerospace-production regions. The all-new A400M military aircraft will make its first flight from Andalusia's Seville San Pablo Airport after its assembly at the EADS CASA factory, the third largest Airbus production plant in the world. The Ministry of Science and Technology estimates the project will create 10,000 new jobs in Spain.

In the military aircraft sector, Spain's participation in the Typhoon Eurofighter is 14 percent. This program has led to the development of important new technologies by EADS CASA, CESA, INDRA and ITP. These programs, along with continued success in the aircraft engine and aircraft systems and simulators markets, underline Spain's important participation in the world aerospace sector.

EADS CASA

EADS CASA is Spain's largest aerospace company and is part of the European consortium EADS. Created through the merger of Aerospatiale Matra, CASA and Daimler Chrysler Aerospace, EADS is the third largest aerospace manufacturer in the world. CASA's activities are in three categories: military transport aircraft (such as C-212, CN-235, C-295 and C-101), aeronautics, and space (Hispasat satellites). EADS CASA has industrial centers throughout Spain and in eight other countries, including the United States. The company exports to more than 50 countries, and is a world leader in light and medium-sized military transport aircraft.

EADS North America has selected a site in Arkansas that is now the center of industrial activity for the KC-330, which EADS North America is offering to the U.S. Air Force as a replacement for the KC-135 refueling fleet. The facility began operations in 2006 with the establishment of an aircraft-engineering center. EADS North America initiated the KC-3304 industrial site selection process with a Request for Information (RFI) to all 50 U.S. states in January 2005. More than 70 candidate locations from 32 states responded to the RFI.

EADS Military Aircraft

EADS' Military Transport Aircraft Division (MTA) designs, manufactures and commercializes light and medium-sized transport aircraft, all with different versions. It is responsible for the CASA Fully Integrated Tactical System (FITS) which is used onboard coast guard aircraft for tactical marine reconnaissance, transformation of the Airbus military derivatives, avionics overhauls of transport aircraft and for development and manufacture of aero structures.

EADS CASA is the world leader in the light and medium-sized military transport aircraft market with the CASA C-212, CASA CN-235 and the CASA C-295. More than 100 operators around the world are flying more than 700 of these aircraft. EADS CASA is the only manufacturer covering the 3-to-9 ton market. Final assembly of all these aircraft is at the San Pablo facilities in Seville.

The Spanish Air Force was the first to employ the new CASA C-295, while the Polish Air Force has just ordered eight more of this aircraft to add to its fleet. In addition, the United Arab Emirates Navy selected the CASA C-295 ASW with the CASA FITS mission system for its maritime patrol aircraft program.

EADS has majority participation in the future A400M large military-transport aircraft. It has been designed to meet the needs of the eight European countries that contributed to the project and that have ordered a total of 196 units. The A400M is the most modern and competitive of the solutions for European tactical transport, logistical, humanitarian and peacekeeping needs. It will replace the C-130 Hercules and C-160 Transall aircraft currently in

operation. Manufacturing and management of this program is handled by Airbus Military. The Military Transport Aircraft Division of EADS will manufacture the horizontal stabilizer and engine nacelles and do final assembly of all the aircraft at the San Pablo facilities in Seville.

MTA is responsible for the transformation of Airbus A310-300 and A330-200 platforms into the Combi/Cargo/Passenger configuration and into the Multi-Role Tanker Transport (MRTT). The Spanish Air Force purchased two VIP versions of the aircraft.

With four other companies, the Military Transport Aircraft Division is also part of the joint Air Tanker Project to offer the British Future Strategic Tanker Aircraft (FSTA). Addressing a new policy on defense purchases, the FSTA is designed to replace the existing tankers flown by the Royal Air Force with wide-ranging air transport services and in-flight-refueling solutions provided by industry. ⁹

EADS Eurocopter Group

The Eurocopter group was born in 1992. The group is now a 100-percent-owned subsidiary of EADS (European Aeronautic, Defense and Space Company). The decision of the Ministry of Defense to purchase Tiger Helicopter has firmly established Eurocopter España as the third pillar of the company in Europe.

CASA is presently seeking U.S. firms involved in the following technology processes: avionics equipment, viper fiber placement systems, CNC (computerized numerical control) specialized machinery and software, contour tape-laying heads for composite tape-laying machines, spare parts and components, landing gear, engine and airframe parts for the F5, F18, P3 and C130 that CASA delivers to the Spanish Armed Forces, as well as other equipment related to composites.

AERNNOVA

AERNNOVA (formerly GAMESA AERONAUTICA) activities involve all areas from conceptual design to testing, certification, production, and product support of large aero structures and aircraft interior components, both in light alloy and composite materials. AERNNOVA of Vitoria, Spain, is collaborating with BOEING in its team design of the structure of the 747 Large Cargo Freighter, a specially modified 747-400 passenger jet that will transport major assemblies for the new Boeing 787 Dreamliner. AERNNOVA is heavily involved in the Sikorsky S-92 High-Capacity Helicopter, including design, certification and manufacturing of the turbine support structure, firewalls, upper structure and transition section of the fuselage, tail cone and horizontal stabilizer, and the interior. AERNNOVA is the partner responsible for supplying a fully equipped empennage for the CRJ 700/900 family, and responsible for design and manufacturing of the equipped empennage and fuselage rear section for ERJ 170/175/190/195.

AERNNOVA is interested in U.S. firms that specialize in areas unrelated to AERNNOVA's areas of expertise, including avionics equipment, CNC (computerized numerical control) specialized machinery and software, aviation fuel, and pre-assembled parts (especially transmission parts for the S-92).

ITP

ITP is one of the most important companies in the Spanish aerospace sector. Created in 1989, ITP's shareholders consist of private and public Spanish entities (53 percent participation) and Rolls Royce PLC (46 percent participation). ITP is present mainly in the aircraft gas-turbine engine industry, where it is involved in R&D, design and maintenance. In 2007, ITP's sales exceeded \$616 million, a 1.1 percent jump from the previous year. Prior to 1990, ITP's main engine maintenance facility in Ajalvir (Madrid) belonged to EADS CASA, and is therefore highly experienced in engine repair and overhaul.

⁹ Excerpt taken from: http://www.eads.net/1024/en/businet/miltrair/miltrair_about.html

Statistics provided by ITP, http://www.itp.es/index.php?option=com_content&task=view&id=15&Itemid=29

Since 1959, this facility has catered to the needs of U.S. clients such as General Electric, Honeywell Garrett and Pratt & Whitney, and has completed several engine maintenance contracts for the U.S. military in Europe. ITP is one of the main developers of the EJ200 engine for the Eurofighter Typhoon. ITP's main programs include:

Engineering and Manufacture

Engines:

- EJ200 (Eurojet) for the TYPHOON
- Trent 1000 (Rolls-Royce) for 7E7
- Trent 900 (Rolls-Royce) for Airbus 380
- Trent 800 (Rolls-Royce) Boeing 777
- Trent 700 (Rolls-Royce) Airbus 330
- Trent 500 (Rolls-Royce) for Airbus 340-600 y 500
- Atar Plus (Snecma) for Mirage
- BR 710 (Rolls-Royce Deutschland) for Global Express GV and others
- BR 715 (Rolls-Royce Deutschland) for Boeing 717
- TF 50 (Vericor Power Systems) industrial and marine engine
- Allison 601, (Rolls Royce North America) industrial engine
- Tobera Vectorial (ITP) for the Eurofighter Typhoon
- TP400 (EPI) Airbus A400M
- AS907 (Honeywell) for Bombardier
- F135 (Pratt & Whitney) for F35 Joint Strike Fighter
- MTR390-E (EADS-EUROCOPTER) for Tiger helicopter

Integrated Logistic Support

Engines: EJ200, F404, Garrett TPE331, Allison 601, TP400, BR715, JSF, T900, TAY 611, MT30, ANTLE.

Manufacturing

Engines:

- TAY, RB2 11 (Rolls-Royce) for the airplane Gulfstream IV, Boeing 747, 757, and others
- Trent 500 (Rolls-Royce) for the airplane Airbus A340 -500/600
- Trent 700 (Rolls-Royce) for the airplane Airbus A330 -300
- Trent 800 (Rolls-Royce) for the airplane Boeing 777
- Trent 900 (Rolls-Royce) for the airplane Airbus A380
- LM 2500 (General Electric), industrial and marine engine
- Allison 601K (Rolls Royce North America) engine for industrial energy generation
- F414 (General Electric) for the FA/18, and others
- CFM-56 (Snecma) for the Boeing 737
- EJ200 (Eurojet) for the Eurofighter Typhoon
- Exhaust of the APU (Airbus) for the A380
- AS907 (Honeywell) for the Bombardier Continental

Assembly and Testing

- EJ200 (engine)
- Trent 700, 800 and 900 (IPT and LPT modules)
- Allison 601K (engine)
- TF50 (industrial and marine engine)

Maintenance

Honeywell: Garrett TPE-331, Garrett TFE-731-2/-3/-5 and Lycoming T53 and T55

Rolls Rovce North America: A250, T63 v A601K.

General Electric: CF-700, J79, F404, CT7, T700 and LM2500

Pratt & Whitney: PT6T-3, JT8-STD and JT8-200

Snecma: Atar 9K50 and Atar 09C

Turbomeca: Makila

The low-pressure turbine is one of ITP's main products, and where it has centered most of its investments in recent years. ITP holds 8.1 percent of the world's portfolio of these subsystems for large reactor engines via its participation in the Trent 500, in its final stages of launch, and the Trent 900, which drives the Airbus 380. The Trent 900 made its maiden long-distance flight in 2005 and began service in 2006. ITP has development programs for each of the following engines: the turboprop TP400 with its 10.000CV (through the European Europrop International Consortium) and the Turboshaft MTRI 390 with its 1000CV (for the consortium MTRI, which will drive the Tiger helicopter in its improved version). Both shared the same delivery date for the first production engines in 2008.

ITP is highly interested in developing partnerships with U.S. firms in maintenance of gas turbines and is currently seeking U.S. firms specializing in avionics equipment, communication systems, aviation fuel suppliers, testing systems and pre-assembled parts.

Airline Maintenance

Madrid's Barajas airport serves as Europe's gateway to Latin America. In the past 10 years, air traffic at Barajas has doubled. Spanish airlines are constantly forced to upgrade their ageing fleets to meet increased demand. This new development in the Spanish air-passenger market will lead to a sharp rise in demand for spare parts. Several charter airlines operate in Spain. The charter airline market is relatively small but has great potential due to Spain's important tourist industry. SPANAIR has been operating a charter service since 1988. According to 2007 statistics, it transported more than 11.2 million passengers to destinations in Spain and throughout Europe, with annual revenues of over \$1.6 billion.¹¹ Growth in the charter airline market will provide many opportunities in the aircraft maintenance and spare-parts markets. Similarly, aircraft and helicopters used in law enforcement and firefighting are in constant need of upgrade and maintenance. Spain has one of Europe's largest air-firefighting units due to the high number of forest fires each year.

IBERIA operates a leading maintenance company, IBERIA MANTENIMIENTO (Maintenance and Engineering), with 150 clients. In recent years, IBERIA MANTENIMIENTO has signed contracts with Continental Airlines, the Spanish Armed Forces, Spanair and General Electric. ¹²

IBERIA MANTENIMIENTO is constantly importing spare parts for its maintenance operations. U.S. suppliers can find best prospects in avionics equipment for the Airbus 300 series and Boeing commercial aircraft, aviation fuel, raw materials, pre-assembled parts and testing systems.

Prominent Airlines in Spain 13

IBERIA

Founded in 1927, IBERIA is Spain's oldest and largest airline, with a fleet of 191 aircraft that fly to 108 destinations in 43 countries. In 2007, IBERIA transported 32.5 million passengers and more than 260,000 tons of cargo. IBERIA is part of the "One World Alliance" and has code-share flights with American Airlines, Aer Lingus, and British Airways. Employing nearly 23,000 people, IBERIA owns one of the leading air maintenance companies in the world (IBERIA MANTENIMIENTO), two tour operators (Viva Tours and Savia), a courier service (Cacesa), a regional air franchise for flights throughout Spain (IBERIA Regional/Air Nostrum), a joint venture in an air catering company (Iberswiss) and an 18.28 percent stake in Amadeus, the leading global travel distribution system. Iberia and Canadian Aviation Electronics (CAE) have formed a joint venture for flight-crew training, consolidating the assets of their respective training centers. IBERIA is also distinguished by social responsibility, ranking among Spain's three top firms in a survey conducted by the Empresa y Sociedad Foundation, and first in employee cooperation programs. In 2004, IBERIA entered the Dow Jones Stock Index for sustainability. IBERIA has retired

¹¹ Statistics provided by Spanair, http://www.spanair.com/web/en-gb/About-Spanair/A-few-words-about-Spanair/

¹² ATECMA Annual Report, 2007

¹³ For a complete list, please see the appendix.

its B-747s for long-haul flights and now exclusively uses the AIRBUS A-340/300 and the AIRBUS A-340/600 for such flights. Even though the European consortium, rather than BOEING, was awarded the contract for IBERIA's fleet renewal, significant opportunities exist for small and medium-sized U.S. companies to supply parts and equipment for the A340-600.

IBERIA's fleet (121)

AIRBUS 340/600 (12) AIRBUS 340/300 (21) AIRBUS 319 (22) AIRBUS 320 (47) AIRBUS 321 (19)

IBERIA Regional/Air Nostrum's fleet (70)

CRJ-200 (35) CRJ-900 (11) ATR-72 (5) DASH-8 Q300 (19) 14

SPANAIR

SAS and Teinver founded SPANAIR S.A., a "Member of the SAS GROUP", in December of 1986. Flight operations began at the end of March 1988, and since then almost 87 million passengers have flown with SPANAIR. At the beginning of its airline activity, SPANAIR operations comprised international charter flights transporting tourists to Spain from more than 100 European airports.

In February 1994, SPANAIR started regular flight operation in Spain, extending routes shortly afterwards into Europe and establishing a ground attendance service. At present, 83 percent of the company's flights are scheduled, while the remaining 17 percent are charter operations.

In 1997, SPANAIR began regular intercontinental flight operations, inaugurating in November of that year service between Madrid and the international airport of Washington-Dulles. Subsequently, SPANAIR added routes from Madrid to Sao Paulo, Rio de Janeiro, Buenos Aires and Havana.

In 1988, when SPANAIR began operations, it carried 454,624 passengers, with a turnover of \$50 million. In 2005, 11.2 million passengers flew with the company and consolidated revenues for the SPANAIR Group reached \$1.6 billion. Since April 2003, SPANAIR has been a full member of the Star Alliance network, the largest and most successful airline alliance worldwide.

In January 2009, a group of Catalan companies, supported by the Catalan government, acquired the majority of SPANAIR.

SPANAIR's fleet (61)

AIRBUS 320 (18) AIRBUS 321 (5) BOEING 717 (4) MD (81/82/83/87) (31) 15

AEROLINEAS ARGENTINA's fleet (40) 16

(Part of the SPANAIR group; based in Spain and Árgentina) AIRBUS 340-200 (3)

¹⁴ Information provided by Grupo Iberia, http://grupo.iberia.es

¹⁵ Information provided by Spanair, http://www.spanair.com

¹⁶ http://www.airfleets.net/flottecie/Aerolineas%20Argentinas.htm

AIRBUS 340-300 (2)

BOEING 737-200 (15)

BOEING 737-500 (17)

BOEING 747-200 (1)

BOEING 747-400 (2)

AIR COMET's fleet (14) 17

(Part of the SPANAIR group; based in Madrid, Spain)

AIRBUS 310-300 (4)

AIRBUS 320-200 (3)

AIRBUS 330-200 (4)

AIRBUS 340-300 (3)

AIR EUROPA

AIR EUROPA was founded in 1984 as Air España, S.A. In 1993, with the new name of AIR EUROPA, the company became the first private airline company to operate scheduled national flights. In 1998, the holding group Global Corporación Empresarial, S.A. was formed, and currently consists of AIR EUROPA and two travel agencies (Halcon Viajes and TravelPlan). AIR EUROPA currently flies to Spain, Europe, North Africa, the Caribbean, and South America.

AIR EUROPA's fleet (41) 18

AIRBUS 330-200 (6)

BOEING 737/800 (32)

BOEING 767/300 (2)

EMBRAER 195 (1)

VUELING AIRLINES

VUELING AIRLINES, based in Barcelona and Valencia, began operations in 2004. In 2007, VEULING carried 9 million passengers to 57 destinations. ¹⁹ In 2008, Vueling and IBERIA low-budget carrier, Clickair, announced plans to merge. As a result, Vueling will absorb Clickair and the entity will be controlled by IBERIA.

VUELING's fleet (18) 20

AIRBUS 320 (18)

CLICKAIR's fleet (24) 21

AIRBUS 320-200 (24)

End-Users

End-users in Spain for aircraft and parts include:

- Spanish aerospace companies (listed above)
- Spanish airlines (listed above)

The U.S. has historically been a leader in the aircraft and parts Spanish import market. This privileged position will likely continue as the demand for U.S. aerospace products and services continues to be high in the Spanish

http://www.airfleets.net/flottecie/Air%20Comet.htm

http://www.airfleets.net/flottecie/Air%20Europa.htm

¹⁹ Information provided by VUELING, http://www.vueling.com

http://www.airfleets.net/flottecie/Vueling%20Airlines.htm

²¹ http://www.airfleets.net/flottecie/Clickair.htm

aerospace sector.

Market Access

Import Climate

The close bilateral ties between Spain and the United States during the past decade have made Spain an excellent market for U.S. exporters. Spain provides the U.S. with one of its largest export markets. In Spain, U.S. aeronautical products and services are considered technologically advanced and recognized as state-of-the-art. U.S. exporters should consider creating an alliance with a Spanish firm to ensure more successful market access.

Import/Distribution

U.S. firms must pay higher import duties in Spain than do their European counterparts. However, U.S. firms can compete based on lower production costs, high quality and a favorable exchange rate. Import duties are determined on a case-by-case basis and can be found at http://www.taric.es (available in English and Spanish).

Foreign firms doing business in Spain enjoy free movement of capital in a market economy where business profits can be transferred without restrictions. In general, foreign products are imported by irrevocable letter of credit. When there is a continued relationship between exporter and importer/ distributor, other forms of payment can be negotiated. As previously mentioned, U.S. exporters are advised that market access will be most successful when forming partnerships with Spanish aerospace firms, which can offer their know-how and expertise of the Spanish aerospace industry and business practices. Current Dollar/Euro exchange rate (approximately 21 percent decrease in the value of the dollar in the last two years) favors U.S. exporters to Spain, as U.S. products are cheaper than their European competitors. This creates a significant comparative advantage for U.S. companies wanting to enter the Spanish market.

Contract Agreement

In general, a representation / distribution agreement is governed by the conditions agreed upon between the parties. Spain applies the "freedom of contract" theory. Contracting parties may establish any stipulation, condition or undertaking provided that it does not violate Spanish law, morals or public policy. Spanish distribution agents usually charge a commission rate of between 5 percent and 7 percent for their services. Additional information on marketing U.S. products and services in Spain can be found in the "Country Commercial Guide" report for Spain, available through U.S. Export Assistance Centers and at the U.S. Government Export website: http://www.export.gov/commercialservice.

Trade Promotion Opportunities

Trade Shows

Paris Air Show (Paris, France) June 15-21, 2009 www.paris-air-show.com

Farnborough International Air Show (Farnborough, U.K.) July 19-25, 2010 http://www.farnborough.com

U.S. Commercial Service - Showcase Europe

The U.S. Department of Commerce has designed this program to help U.S. firms take advantage of commercial opportunities in the E.U. market as well as in the emerging markets of the Newly Independent States.

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U.S. Commercial Service Spain (USCS/Spain) offers a whole range of products and services for U.S. companies seeking business partners in Spain. These services include up-to-date market information, assessment of a U.S. firm's product sales potential, identification of potential representatives, individual counseling, trade missions, setting up appointments with screened firms, etc. For additional information on the products and services provided by USCS/Spain, we invite you to our website: http://www.buyusa.gov/spain

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Email: ELennype@mail.doc.gov

Web pages:

www.buyUSA.com www.embusa.es http://www.buyusa.gov/spain/es/ferias.html

For More Information

The U.S. Commercial Service in Madrid, Spain can be contacted via e-mail at: carlos.perezminguez@mail.doc.gov; Phone: 34-913 081 598; Fax: 34-915 630 859 or visit our website: http://www.buyusa.gov/spain/en/.

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Spain: Aerospace and Defense Industry Page 23 of 23

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